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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,046	11/30/2000	Norihito Fujita	P/2238-25	2977

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EXAMINER	
CHO, HONG SOL	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/727,046	FUJITA, NORIHITO	
	Examiner	Art Unit	
	Hong Cho	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/8/2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6,7,15-19 and 23-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6,7,15-19 and 23-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The following is in response to the amendments filed on 12/8/2005. Claims 1-5, 8-14, and 20-22 have been cancelled. Claims 6, 7, 15-19, and 23-37 are pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 6, 7, 15-19, 23-27, and 29-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fredette et al (U.S 6697361), hereinafter referred to as Fredette in view of Basso et al (U.S 6690678), hereinafter referred to as Basso.

Re claims 15 and 24, Fredette discloses supporting the multiprotocol label switching (MPLS) where multiple data streams sharing the same data path of edge routers and ATM network (*a node which consolidates communication connections in a*

connection-oriented network that determines whether a tunneling communication connection is present both in a first route of an existing communication connection and in a second route of a second communication, figure 2a; column 5, lines 22-31), where data path are established from source devices 202 and 203 to destination devices 206 and 208 (*said first and second routes have different destination nodes in said connection oriented network*, column 5, lines 59-65). Fredette discloses an ingress router using the same merge identifier (MID) value for each new request corresponding to a data path that it is capable of aggregating with the existing data path (*merging said existing communication connection and said second communication connection on said tunneling communication connection*, column 7, lines 36-41). Fredette fails to disclose a processor modifying a parameter of said tunneling communication connection to accommodate merging said second communication connection in said tunneling communication connection. Basso discloses a process of adjusting the bandwidth of a virtual path connection according to the current network resource reservation (*a processor modifying a parameter of a tunneling communication connection to accommodate merging a second communication connection*, column 4, lines 24-28). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fredette to adopt the process of modifying function of Basso to accommodate merging other communication connections into common part of a first route of an existing communication connection. The motivation is to optimize overall network performance of the end-to-end service by reducing delays for high priority traffic and smoothing of low priority traffic.

Re claims 16 and 25, Fredette discloses a MID used to indicate a virtual path in ATM network (*said existing communication connection is a tunneling communication connection*, column 5, lines 7-10).

Re claims 6 and 17, Fredette discloses a data transfer in MPLS network using a label switching router through label switched paths (figure 2a; column 5, line 54 to column 6, line 14).

Re claims 7 and 18, Fredette discloses a data transfer in ATM network using an ATM switch through virtual channels in virtual paths (figure 1; column 5, lines 11-31).

Re claim 19, Fredette discloses creating a tunneling communication connection capable of accommodating said existing communication connection, wherein said tunneling communication connection is in said first route and second route (figure 2a, link between element 212 and 216).

Re claims 23 and 27, Fredette discloses second communication being a new communication connection (column 7, lines 38-40).

Re claim 26, Fredette discloses assigning new MID value if said tunneling communication connection is not present (creating a new tunneling communication from a third node to a fourth node, wherein said third and fourth nodes are in said first route and second route, if said tunneling communication connection is not present, figure 2a). Two different MID values are assigned between node 216 and 218.

Re claims 29 and 32, Fredette discloses all of the limitations of the base claim, but fails to disclose determining if modification of the parameter is possible and temporarily setting the modification of the parameter when modification is possible at a node within

the tunneling communication connection. Basso discloses a process of dynamically adjusting the bandwidth of a virtual path connection according to the current network resource reservation (*temporarily setting the modification of the parameter when modification I possible at a node within the tunneling communication connection*, column 4, lines 24-28). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fredette to adopt modifying function of Basso to dynamically adjusting the bandwidth of a virtual path connection according to the current network resource reservation. The motivation is to optimize overall network performance of the end-to-end service by reducing delays for high priority traffic and smoothing of low priority traffic.

Re claims 30, 31, 33, and 34, Fredette discloses all of the limitations of the base claim, but fails to disclose sending a parameter modification request to another node within the tunneling communication connection, receiving by the node a parameter modification response from the other node indicating whether modification of the parameter at the other node is possible, and modifying the parameter when modification is possible at the other node. Basso discloses network nodes allocating bandwidth among connections by sending and receiving resource management (RM) cell conveying information about the state of the network like bandwidth availability (column 12, lines 20-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fredette to adopt modifying function of Basso to dynamically adjusting the bandwidth of a virtual path connection by using RM cell. The

motivation is to optimize overall network performance of the end-to-end service by reducing congestion in the network.

Re claim 35, Fredette discloses supporting the multiprotocol label switching (MPLS) where multiple data streams sharing the same data path of edge routers and ATM network (*a node which consolidates communication connections in a connection-oriented network that determines whether a tunneling communication connection is present both in a first route of an existing communication connection and in a second route of a second communication*, figure 2a; column 5, lines 22-31), where data path are established from source devices 202 and 203 to destination devices 206 and 208 (*said first and second routes have different destination nodes in said connection oriented network*, column 5, lines 59-65). Fredette discloses an ingress router using the same merge identifier (MID) value for each new request corresponding to a data path that it is capable of aggregating with the existing data path (*merging said existing communication connection and said second communication connection on said tunneling communication connection*, column 7, lines 36-41). Fredette fails to disclose a processor modifying a parameter of said tunneling communication connection to accommodate merging said second communication connection in said tunneling communication connection. Basso discloses a process of adjusting the bandwidth of a virtual path connection according to the current network resource reservation (*a processor modifying a parameter of a tunneling communication connection to accommodate merging a second communication connection*, column 4, lines 24-28). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fredette to adopt the process

of modifying function of Basso to accommodate merging other communication connections into common part of a first route of an existing communication connection. The motivation is to optimize overall network performance of the end-to-end service by reducing delays for high priority traffic and smoothing of low priority traffic. Fredette fails to disclose determining whether modification of the parameter at the other node is possible and modifying the parameter when modification is possible at the other node. Basso discloses network nodes allocating bandwidth among connections by sending and receiving resource management (RM) cell conveying information about the state of the network like bandwidth availability (column 12, lines 20-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fredette to adopt modifying function of Basso to dynamically adjusting the bandwidth of a virtual path connection by using RM cell. The motivation is to optimize overall network performance of the end-to-end service by reducing congestion in the network.

Re claims 36 and 37, Fredette discloses all of the limitations of the base claim, but fails to disclose sending a parameter modification request to another node within the tunneling communication connection, receiving by the node a parameter modification response from the other node indicating whether modification of the parameter at the other node is possible, and modifying the parameter when modification is possible at the other node. Basso discloses network nodes allocating bandwidth among connections by sending and receiving resource management (RM) cell conveying information about the state of the network like bandwidth availability (column 12, lines 20-50). It would have

been obvious to one having ordinary skill in the art at the time the invention was made to modify Fredette to adopt modifying function of Basso to dynamically adjusting the bandwidth of a virtual path connection by using RM cell. The motivation is to optimize overall network performance of the end-to-end service by reducing congestion in the network.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fredette in view of Basso and further in view of Tappan (U.S 6295296).

Re claim 28, Fredette discloses all of the limitations of the base claim, but fails to disclose stacking a label assigned for the tunneling communication connection in a shim header. Tappan discloses a router receiving incoming packets that have shim headers between their link layer and network layer headers containing one or more stack entries. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fredette to use shim headers of Tappan in stacking a label assigned for the tunneling communication connection. The motivation is to allow a router to employ the label in the top stack entry as direct index into a forwarding table that the router uses to forward the packet.

Response to Arguments

4. Applicant's arguments filed on 12/8/2005 have been fully considered but they are not persuasive.

Regarding claim 15, the Applicant argues that neither Fredette nor Basso discloses a processor that modifies a parameter of a tunneling communication session to

accommodate merging a second communication connection in the tunneling communication connection. The Examiner respectfully disagrees. First of all, Fredette discloses merging a communication connection into an existing communication connection by assigning the same label identification, which is the same virtual channel or path used by previous communication connection, to a new communication connection. Secondly, Basso discloses a process of adjusting the bandwidth of a virtual path connection based on traffic load on a given link to meet the requirement of network resource reservation (*a processor modifying a parameter of a tunneling communication connection to accommodate merging a second communication connection*, column 4, lines 24-28).

Applicant further argues that Basso does not disclose merging a communication connection in a tunneling communication connection. Thus argument seems misplaced since Examiner did not rely on Basso to show that feature.

Therefore, the Examiner concludes that the rejection of claims stands.

Conclusion

5. **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc
Hong Cho
Patent Examiner
2/17/2006

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